

NO WORRYES HAWAIIAN HURRICANE CLINCHERS

92-543 Kokole Pl.
Makakilo, HI 96707
August 15, 1994

Dr. Tim Reinhold
Department of Civil Engineering
110 Lowery Hall, Box 340911
Clemson University
Clemson, SC 29634-0911

Dear Dr. Reinhold,

On August 12, My brother and I attended the Connector Workshops for Builders, Specifiers, and Building Officials, sponsored by Simpson Strong-Tie Company. The most important presentation, for people here in Hawaii, was about the continuous load transfer path. One significance factor was precision framing- where the rafter is installed directly above the stud. Unfortunately, in existing houses this is rarely the case.

Single-wall construction is very common in older homes in Hawaii, and we have found that the studs, or in this case, posts, are only under every fourth rafter, and the rafters are 4-feet on center! Actually, the posts are directly under where the header butts up against the next header in the run. The rafter is to one side of this butt joint, so the rafter does not line up directly over the post.

On newer double-wall construction, we have seen that the studs rarely line up directly under the rafters. We have seen a house where the walls have studs 16-inches on center, constructed with a roof that had rafters 24-inches on center. This means that the only rafter and stud that will line up to form a continuous load path is every fourth stud or every other rafter. What are the odds that they will exactly line up?

Another workshop that Simpson held was on mis-installation of their products. They visited new construction sites and documented many examples of shoddy and incorrect application of their products. Even on new construction, there were studs that didn't always line up with the rafters or even with the studs on the first floor. I believe that the Simpson Company realizes what a problem it is to retrofit for a continuous load path and has decided not to actively pursue the retrofit market.

To achieve a continuous load path on existing houses the outside sheathing must be taken into account. The most important tie in an existing house is between the rafter and top plate or header. Our Hurricane Clincher effectively ties together the rafter, top plate, and outside sheathing (and indirectly, the studs) to form the most practical and economical continuous load path. Hope to hear from you soon.

Sincerely,

John R. Thompson

cc: Dean C. Flesner